



CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)

An ISO 9001: 2015 Certified Company

NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory



Job No.: CQCE/BBMP/PRN/W.No.17/2019-20

Date: 14.09.2019

TEST REPORT

CLIENT	:	Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.
AGENCY	:	Sri. Purushotham Raju N, Contractor, Bangalore.
NAME OF THE WORK	:	Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.
SAMPLE ID	:	Cement (Zuari OPC 53 Grade)
DATE OF MANUFACTURE		August - 2019
DATE OF TESTING		12.09.2019 to 14.09.2019
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part -5)	140 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	430 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	27.50 %	-

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Authorised Signatory
R.R. Nagar Project Sub-Division
Bruhat Bengaluru Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory



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CQCE/BBMP/PRN/W.No.17/2019-20

Date : 14.09.2019

TEST REPORT ON COARSE AGGREGATES IS 383-1970 (RA- 2002)

: Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.

: Sri. Purushotham Raju N, Contractor, Bangalore.

: Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.

: 14.09.2019

: 40mm Aggregates

Total Wt. of Aggregates in gms **15000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	182	1.21	1.21	98.79	95-100
20	8326	55.51	56.72	43.28	30-70
10	3256	21.71	78.43	21.57	10-35
4.75	2715	18.10	96.53	3.47	0-5

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For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

R.R. Nagar Project Supervisor
Bruhat Bengaluru Mahanagara Palike



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Date : 14.09.2019

TEST REPORT ON FINE AGGREGATES (SAND) IS 383-1970 (RA- 2002)

: Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.

: Sri. Purushotham Raju N, Contractor, Bangalore.

: Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.

: 14.09.2019

: Sand

Total Wt. of Aggregates in gms

1000

Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	80	8.00	8.00	92.0	90-100
2.36	132	13.20	21.20	78.8	75-100
1.18	189	18.90	40.10	59.9	55-90
600 Micron	156	15.60	55.70	44.3	35-59
300 Micron	266	26.60	82.30	17.7	8-30
150 Micron	98	9.80	92.10	7.9	0-10

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(Signature)

(Signature)

For CIVIL QUALITY CONSULTANTS & ENGINEERS

(Signature)
Authorised Signatory

Assistant Executive Engineer
R.R. Nagar Project Sub-Division-01
Bruhat Bengaluru Mahanagara Palike



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CQCE/BBMP/PRN/W.No.17/2019-20

Date : 14.09.2019

TEST REPORT ON COARSE AGGREGATES

IS 383-1970 (RA- 2002)

: Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.

: Sri. Purushotham Raju N, Contractor, Bangalore.

: Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.

: 14.09.2019

: 20mm Aggregates

Total Wt. of Aggregates in gms= 5000

Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	189	3.8	3.8	96.2	95-100
10	2569	51.4	55.2	44.8	25-55
4.75	1890	37.8	93.0	7.0	0-10

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Authorised Signatory

Assistant Executive Engineer
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Lab No: CQCE/BBMP/PRN/W.No.17/2019-20

Date: 23.09.2019

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : Executive Engineer, Project Division, RR Nagara Zone, BBMP,
Agency : Sri. Purushotham Raju N, Contractor, Bangalore.
Name of Work : Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.
Sample Identification : 8mm, 10mm, 12mm, 16mm, 20mm, 25mm Fe 500 TMT Bars
Technical Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)
Date of test : 23.09.2019

S.No	Brand	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
				0.20 % proof stress/ yield stress (N/mm ²)	Tensile strength (N/mm ²)	Elongation, percent on gauge length
1	Fe 500	8	0.38	545	552	13.5
2	Fe 500	10	0.62	556	564	14
3	Fe 500	12	0.89	569	575	15
4	Fe 500	16	1.58	572	578	17
5	Fe 500	20	2.48	576	582	17.5
6	Fe 500	25	3.86	580	592	18.5

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QCE/BBMP/PRN/W.No.17/2019-20

Date : 24.09.2019

TEST REPORT ON HALLOW CONCRETE BLOCKS

Client : Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.
Agency : Sri. Purushotham Raju N, Contractor, Bangalore.
Name of the Work : Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.
Date of Testing : 24.09.2019
Size of Blocks : 400mm x 200mm x 200mm
Cross Sectional Area : 80000 mm²
Technical Reference : IS: 2185 (Part 1) - 2005
No. of Blocks Tested : 04

S.No.	Block ID	Wt. in Kg	Failure load (N)	Compressive strength (N/mm ²)	Block Density in Kg/M ³	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	36.6	415.6	5.20	2287.50	Minimum required Compressive Strength of Individual Units 5.00N/mm ²
2	Block 2	34.2	428.6	5.36	2137.50	
3	Block 3	35.8	420.2	5.25	2237.50	
4	Block 4	32.6	418.4	5.23	2037.50	

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BBMP/PRN/W.No.17/2019-20

Date : 24.09.2019

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.
Agency : Sri. Purushotham Raju N, Contractor, Bangalore.
Name of the Work : Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.
Date of Testing : 24.09.2019
Size of Blocks : 400mm x 200mm x 200mm
Gross Sectional Area : 80000 mm²
Technical Reference : IS: 2185 (Part 1) - 2005
No. of Blocks Tested : 04

S.No.	Block ID	Wt. in Kg	Failure load (N)	Compressive strength (N/mm ²)	Block Density in Kg/M ³	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	32.9	416.9	5.21	2056.25	Minimum required Compressive Strength of Individual Units 5.00N/mm ²
2	Block 2	35.6	420.3	5.25	2225.00	
3	Block 3	34.5	425.8	5.32	2156.25	
4	Block 4	33.6	426.3	5.33	2100.00	

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BBMP/PRN/W.No.17/2019-20

Date : 24.09.2019

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.
Contractor : Sri. Purushotham Raju N, Contractor, Bangalore.
Name of the Work : Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.
Date of Testing : 24.09.2019
Size of Blocks : 400mm x 200mm x 200mm
Gross Sectional Area : 80000 mm²
Technical Reference : IS: 2185 (Part 1) - 2005
No. of Blocks Tested : 04

S.No.	Block ID	Wt. in Kg	Failure load (N)	Compressive strength (N/mm ²)	Block Density in Kg/M ³	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	34.2	435.2	5.44	2137.50	Minimum required Compressive Strength of Individual Units 5.00N/mm ²
2	Block 2	33.6	428.9	5.36	2100.00	
3	Block 3	35.2	426.3	5.33	2200.00	
4	Block 4	34.9	439.5	5.49	2181.25	

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Date : 14.09.2019

TEST REPORT ON FINE AGGREGATES (SAND)

IS 1542-1992

: Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.

: Sri. Purushotham Raju N, Contractor, Bangalore.

: Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.

: 14.09.2019

: Sand

Total wt. of aggregates in gms = 1000

Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits as per IS 1542-1992
10	0	0	0	100	100
4.75	16	1.60	1.60	98.4	95-100
2.36	25	2.50	4.10	95.9	95-100
1.18	32	3.20	7.30	92.7	90-100
600 Micron	78	7.80	15.10	84.9	80-100
300 Micron	250	25.00	40.10	59.9	20-65
150 Micron	518	51.80	91.90	8.1	0-15

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CQCE/BBMP/PRN/W.No.17/2019-20

Date : 14.09.2019

TEST REPORT ON FINE AGGREGATES (SAND) IS 2116-1980

: Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.

: Sri. Purushotham Raju N, Contractor, Bangalore.

: Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.

: 14.09.2019

: Sand

Total wt. of aggregates in gms = 1000

Particle Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits as per IS 2116-1980
4.75	0	0.00	0.00	100.0	100
7.5	14	1.40	1.40	98.6	90-100
15	38	3.80	5.20	94.8	70-100
30 Micron	85	8.50	13.70	86.3	40-100
60 Micron	266	26.60	40.30	59.7	5-70
150 Micron	480	48.00	88.30	11.7	0-15

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Ref: CQCE/BBMP/PRN/W.No.17/2019-20

Date: 13.10.2019

REPORT ON COMPRESSIVE STRENGTH OF CEMENT MORTAR CUBES

Client : Executive Engineer, Project Division, RR Nagara Zone, BBMP, Bangalore.
Contractor : Sri. Purushotham Raju N, Contractor, Bangalore.
Name of the work : Construction of Market Building At JP Park in Ward No 17, BBMP, Bangalore.
Sample ID : Cement Mortar for Plastering
Size of cubes : 50mmx50mmx50mm
Cross Sectional Area : 2500 mm²
Technical Reference : IS: 2250-1981
Compressive Strength as : 28th day

S.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	15.09.2019	13.10.2019	0.565	10.9	4.36
2	15.09.2019	13.10.2019	0.528	9.6	3.84
3	15.09.2019	13.10.2019	0.582	10.2	4.08

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